



Support the customer. Drive the mission.

ITCD

2016 Strategic Plan
Information Technology and Communications Division
NASA Headquarters

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Message from ITCD Leadership

The Information Technology and Communications Division (ITCD) prides itself on providing a full range of IT capabilities and communications support for employees and organizations in NASA Headquarters. The 2016 ITCD Strategic Plan represents our Division's efforts to transform the way in which ITCD fulfills this mission.

Over the past few years, NASA has implemented the IT Infrastructure Integration Program (I3P), an initiative aimed at transforming NASA's IT infrastructure services from a Center-based model to an enterprise service management approach. This solution to provide a more efficient and effective IT infrastructure that crosses Center boundaries represents a fundamental shift in NASA's approach to IT – an approach that has and continues to present many challenges to ITCD.

A main driver of this Strategic Plan is to enable the Division to meet any and all of the challenges along the way toward full implementation of this enterprise-based IT approach. Our customers' needs are growing, with higher expectations for greater levels of service and engagement. The Division will strive to continuously improve its commitment to the secure and efficient delivery of IT and communications products and services.

This Strategic Plan encompasses our strategic intentions over the next three years, and serves as a foundation document for both the long-range and day-to-day operations of the Division. The strategic planning process is one of many tools that will better ensure that we are prepared for enterprise-wide challenges this decade and beyond.

Sincerely,



Victor Thompson
Headquarters Chief Information Officer
Director, ITCD



Dennis Groth
Headquarters Deputy Chief Information Officer
Deputy Director, ITCD

Strategic Planning Approach

ITCD's strategic planning approach combined top-down strategic development with bottom-up execution and performance measurement. The Division first worked closely with its stakeholders and customers at NASA Headquarters to identify its strategic priorities then developed a set of logical stepping stones to drive the organization from strategic priorities to tactical implementations. The resulting framework is illustrated in Figure 5.

At the peak of the pyramid, the vision expresses what ITCD is ultimately aiming to achieve. One step down, the mission captures the purpose and function of the organization. Together, the vision and the mission are enduring statements on why the organization exists and what it is ultimately trying to achieve.

Directly supporting the mission are the strategic goals and objectives. The goals are broad statements of strategic change that collectively represent how the mission and vision will be realized, while the objectives provide specificity on how the goals will be accomplished. The strategic goals and objectives, reviewed with each new version of the strategic plan, are valid for 3 to 5 years. The initiatives provide tactical specification that guide the implementation of the strategic objectives, and ultimately, the strategic goals. ITCD's current set of initiatives cover the next 2 years and will be revised according to evolving stakeholder and organizational needs.

During implementation, performance measurements track the accomplishment of initiatives and ultimately the objectives, goals, mission, and vision. Thus, while strategy is developed from the top of the pyramid and moves downward, execution of that strategy starts at the bottom and moves upward.

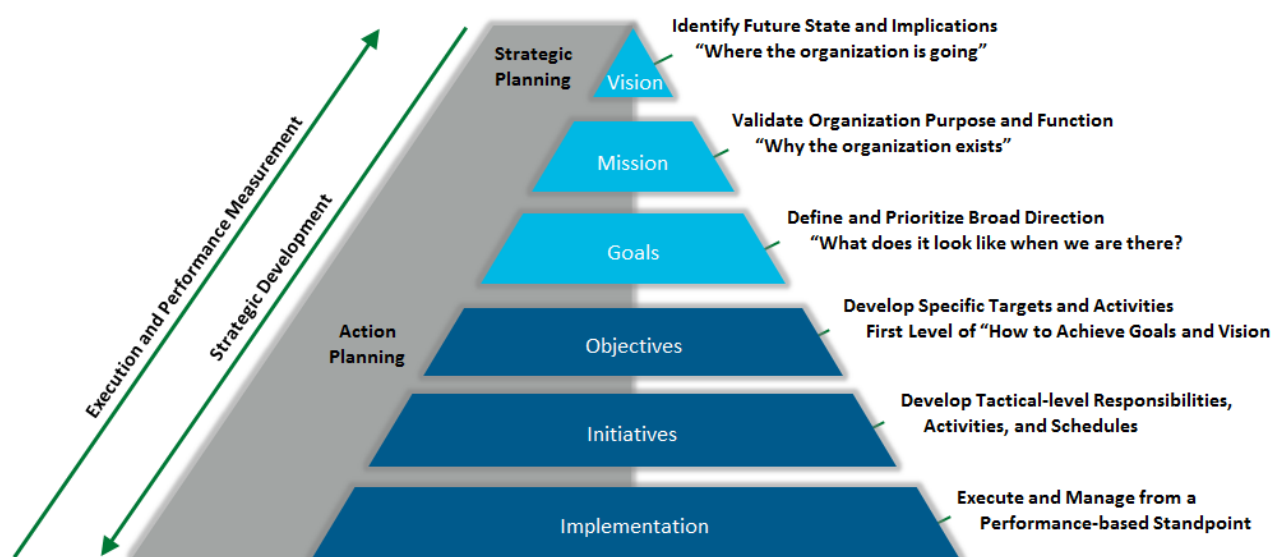


Figure 1: ITCD Strategic planning approach

ITCD Strategic Plan - 2016

ITCD Strategic Plan Overview

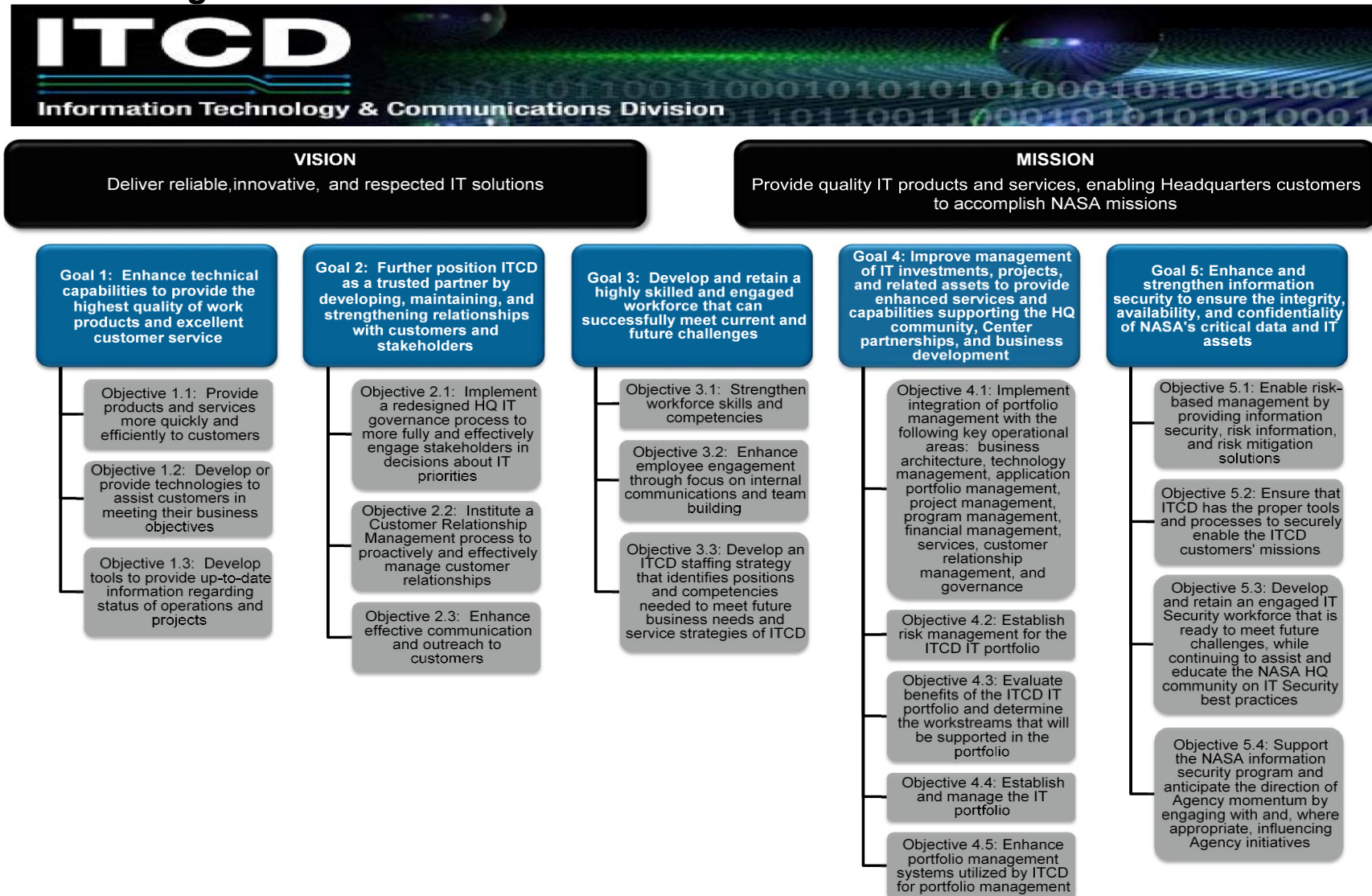


Figure 2: ITCD Strategic Plan Overview

Strategic Goals, Objectives, and Initiatives

To achieve its mission of providing quality IT services that enable NASA Headquarters customers to accomplish NASA missions, ITCD developed four goals that define the Division's strategic priorities. Underlying these strategic goals are objectives and initiatives that aim to ensure the successful implementation and maintenance of these goals, while also establishing consistent and reliable methodologies for sustaining critical IT capabilities and processes.

Goal 1: Enhance technical capabilities to provide the highest quality of work products and excellent customer service

Objective 1.1: Provide products and services more quickly and efficiently to customers

- The Division will foster greater collaboration between work-streams and will enhance transparency around ITCD priorities, work streams integration points, ITCD project and service efforts, and ITCD's Strategy through internal meetings, timely and regular communication, better knowledge management, and training opportunities for all staff.

Objective 1.2: Develop or provide technologies to assist customers in meeting their business objectives

- The Division will develop customer profiles and establish a process for gathering product and services needs on a regular basis. The Division will also prepare criteria for reviewing customer's needs and develop a solution to provide a "proof of concept" of potential

solutions addressing its customers' requirements.

Objective 1.3: Develop tools to provide up-to-date information regarding status of operations and projects

- The Division will develop a systematic way to track and respond proactively to HQ customer requests and will create templates to solicit customer feedback on services. The Division will select and implement Business Intelligence, Knowledge Management, and IT Portfolio/Project Management tool to enable continuous monitor of project and service performance. Additionally, the Division will enhance its solution sharing and software request management capabilities to HQ customers and other Management Directorates and Centers.

Goal 2: Further position ITCD as a trusted partner by developing, maintaining, and strengthening relationships with customers and stakeholders

Objective 2.1: Implement a redesigned HQ IT governance process to more fully and effectively engage stakeholders in decisions about IT priorities

- The Division will develop processes and capabilities that will enhance financial and resource management, improve forward planning and selection of projects that are approved for execution. Increase stakeholder participation and determine which organizations should have membership in the governance process, update charters and by-laws, and develop a feedback mechanism to measure the value of the governance structure.

Objective 2.2: Institute a Customer Relationship Management process to proactively and effectively manage customer relationships

- The Division will be focused on the development and implementation of a customer request tracking tool with the ability

to track customer requests, provide transparency to the customer on request status, obtain customer feedback, elevate requests depending on their significance, and build a better partnership between HQ offices and ITCD. ITCD will develop methods to regularly obtain customer feedback for the identification of service gaps and areas of success for IT services delivered to the HQ customer community.

Objective 2.3: Enhance communication and outreach to customers

- The Division will implement methods to enhance communication both internally within the Division and externally to customers by incorporating new communications vehicles, defining stakeholder roles and responsibilities, developing job aids and SOPs, and updating processes for maintaining and communicating relevant information to ITCD's customers.

Goal 3: Develop and retain a highly skilled and engaged workforce that can successfully meet current and future challenges

Objective 3.1: Strengthen workforce skills and competencies

- The Division will use the ITCD competency assessment conducted by BAH to identify and create plans that address competency gaps. ITCD staff will also have an opportunity to attend bi-monthly technology brown-bag workshops, Customer Service Training, ITIL training, and other relevant training to increase professional knowledge and help ITCD staff better service its customers

Objective 3.2: Enhance employee engagement through focus on internal communications and team building

- Division Leadership will engage with ITCD personnel through continued focus on cross Division communications, IT project awareness, and tier role in the ITCD Strategic Vision and Tactical Plan. ITCD team members will play an integral role in planning and executing

the initiatives necessary to meet the Divisions Strategic Goals and Objectives. The division will use EVS scores to obtain feedback and identify specific areas to improve employee engagement.

Objective 3.3 Develop an ITCD staffing strategy that identifies positions and competencies needed to meet the future business needs and service strategies of ITCD

- Division Leadership will assess the current organizational structure, on board staffing skills, future needs and develop of a staffing strategy that will enable ITCD to achieve the achieve our mission and goals. A formal session plan will be developed and implemented to address coverage for key service areas in the event of staff retirements or extended outages of staff members.

Goal 4: Improve management of IT investments, projects, and related assets to provide enhanced services and capabilities supporting the HQ community, Center partnerships, and business development.

Objective 4.1: Implement integration of portfolio management with the following key operational areas: Business architecture, technology management, application portfolio management, project management, program management, financial management, services, customer relationship management, and governance.

- The division will develop, populate, and finalize a Technical Reference Model, which will provide a taxonomy foundation to describe standards, specifications, and technologies used in ITCD. Division Leadership will establish a governance model to manage, support, and continually improve ITCD's IT Portfolio Management processes and governance. The division will also develop a Service Catalog of ITCD products to be disseminated and shared with stakeholders.

Objective 4.2: Establish risk management for the ITCD IT portfolio.

- The division will develop and implement risk management plan for the ITCD IT Portfolio to ensure the portfolio is well balanced and the division understand the benefits and risks inherent with IT investment decisions.

Objective 4.3: Evaluate benefits of the ITCD IT portfolio and determine the work-streams that will be supported in the portfolio

- The division will develop a performance management plan for ITCD's IT Portfolio to ensure ITCD projects, services, and assets provide value to stakeholders; align with ITCD's Strategic Plan and business

objectives; and deliver on time, within budget, and within scope. To continually improve upon the performance management plan, the division will regularly update Select, Control, and Evaluate performance metrics. The division will also establish a formula for calculating ROI, which will be used to rank, prioritize, select and justify IT investment decisions.

Objective 4.4: Establish and manage the IT Portfolio

- Division Leadership will develop standard processes and weighted criteria to use in making IT investment decisions. The Division will identify data requirements for the baseline IT portfolio to support initial reporting, selection, and monitoring and management requirements. The Division will maintain a project schedule for all in-flight projects.

Objective 4.5: Enhance ITCD staff skills, management, and related support of the IT portfolio.

- Division Leadership will develop and schedule an IT general and role-based Portfolio Management training. Division Leadership will also develop competency models and role descriptions to leverage ITCD staff supporting IT portfolio management processes. All information pertaining to roles and responsibilities involved in IT Portfolio Management will be documented in the IT Portfolio Management Handbook.

Goal 5: Enhance and strengthen information security to ensure the integrity, availability, and confidentiality of NASA's critical data and IT assets.

Objective 5.1: Enable risk-based management by providing information security risk information and risk mitigation solutions.

- The Division will continue to support HQ information owners and system owners in making informed risk-based decisions by improving the mechanisms for conducting security reviews and assessments, developing risk analyses and recommendations, communicating risk information to stakeholders, and ensuring that risks are mitigated appropriately.

Objective 5.2: Ensure that ITCD has the proper tools and processes to securely enable the ITCD customers' missions.

- The Division will increase the integration of security into the life cycle of HQ applications, information collections, and systems. The Division will focus on security improvements throughout the application development and change management process, in monitoring of system and network activity, and in the compliance of HQ information collections with security requirements and Federal regulations.

Objective 5.3: Develop and retain an engaged IT Security workforce that is ready to meet

future challenges, while continuing to assist and educate the NASA HQ community on IT Security best practices.

- Ensuring that the HQ workforce is knowledgeable about security requirements, risks and tools is vital for protecting NASA information and IT assets. To that end, the Division will ensure that information about security policies and available security solutions and services is up-to-date and accessible to all HQ personnel.

Objective 5.4: Support the NASA information security program and anticipate the direction of Agency momentum by engaging with and, where appropriate, influencing Agency initiatives.

- The Division will actively participate in Agency information security activities, including standing IT and IT security governance bodies, project review boards, and NASA information security project teams. In this way, the Division will ensure that HQ customers and priorities are fully represented and that HQ requirements can be addressed by Enterprise projects and services.

Supporting Other Missions and Strategic Goals

As shown in Figure 2, ITCD supports the mission of the Agency's Office of the Chief Information Officer (OCIO) by providing quality IT and communications products and services to NASA Headquarters employees as part of a larger Agency-wide infrastructure. Moreover, ITCD and OCIO both drive the Agency's overall mission, as NASA's ability to successfully carry out its programs depends on the secure and efficient delivery of IT and communications products and services across the Agency with strong leadership from Headquarters.

NASA Mission	OCIO Mission	ITCD Mission
Drive advances in science, technology, aeronautics, and space exploration to enhance knowledge, education, innovation, economic vitality, and stewardship of Earth	Provide secure, effective and affordable information technologies and services that enable NASA's mission	Provide quality IT products and services, enabling Headquarters customers to accomplish NASA missions

Figure 3: ITCD's mission supports those of NASA & OCIO

ITCD Strategic Plan - 2016

ITCD's strategic goals are aligned in either a direct or cross-cutting manner to those of the Agency and OCIO, as shown in Figure 3 and Figure 4, respectively.

Direct alignment is established when there is clear linkage between the execution of an ITCD goal and achievement of a NASA or OCIO goal.

Cross-cutting alignment is established when execution of the ITCD goal supports the broader environment in which a NASA or OCIO goal will be achieved.

Comparison of NASA Strategic Plan to NASA ITCD Strategic Plan		NASA Strategic Plan Goals (2014)		
		Expand the frontiers of knowledge, capability, and opportunity in space	Advance understanding of Earth and develop technologies to improve the quality of life on our home planet	Serve the American public and accomplish our Mission by effectively managing our people, technical capabilities, and infrastructure
ITCD Strategic Plan Goals	Enhance technical capabilities to provide the highest quality of work products and excellent customer service	Cross-cutting	Cross-cutting	Direct
	Further position ITCD as a trusted partner by developing, maintaining, and strengthening relationships with customers and stakeholders	Cross-cutting	Cross-cutting	Direct
	Develop and retain a highly skilled and engaged workforce that can successfully meet current and future challenges	Cross-cutting	Cross-cutting	Direct
	Improve management of IT investments, projects, and related assets to provide enhanced services and capabilities supporting the HQ community, Center partnerships, and business development.	Cross-cutting	Cross-cutting	Direct
	Enhance and strengthen information security to ensure the integrity, availability, and confidentiality of NASA's critical data and IT assets.	Cross-cutting	Cross-cutting	Direct

Figure 4: Alignment of ITCD Strategic Goals to those of NASA

Comparison of NASA OCIO Strategic Plan to NASA ITCD Strategic Plan		NASA OCIO Strategic Plan Goals (2014)		
		Transform NASA's IT infrastructure and application capabilities and services to meet evolving stakeholder needs and support mission success	Enhance and strengthen IT security and cybersecurity to ensure the integrity, availability, and confidentiality of NASA's critical data and IT assets	Enable innovative, sustainable, and transparent mission support through effective IT planning, enterprise architecture, and governance
ITCD Strategic Plan Goals	Enhance technical capabilities to provide the highest quality of work products and excellent customer service	Direct	Cross-cutting	Direct
	Further position ITCD as a trusted partner by developing, maintaining, and strengthening relationships with customers and stakeholders	Direct	Cross-cutting	Cross-cutting
	Develop and retain a highly skilled and engaged workforce that can successfully meet current and future challenges	Direct	Direct	Direct
	Improve management of IT investments, projects, and related assets to provide enhanced services and capabilities supporting the HQ community, Center partnerships, and business development.	Direct	Cross-cutting	Direct
	Enhance and strengthen information security to ensure the integrity, availability, and confidentiality of NASA's critical data and IT assets.	Cross-cutting	Direct	Cross-cutting

Figure 5: Alignment of ITCD Strategic Goals to those of OCIO

Collaboration Principles and Core Values

The Division identified and adopted several **Collaboration Principles** to serve as guidelines when completing progress towards the identified goals. These principles guide the behavior of ITCD personnel and provide a foundation for everything we do, ultimately leading to improved performance.

- Clearly define the goals, objectives, requirements, and success criteria that will meet and/or exceed expectations.
- Communicate respectfully to encourage the flow of diverse ideas and stimulate creativity.
- Discuss and evaluate approaches, and present a well-researched set of options.
- Commit to the project, actively participate, and implement!

In addition, ITCD identified a set of fundamental principles, or **Core Values**, that govern the behavior of all personnel. These values are applicable to every aspect of the ITCD Strategic Plan and are essential to the success of each component.

- Integrity – we are honest and true to our word.
- Responsibility – we are accountable for our actions.
- Helpfulness – we enthusiastically assist our customers.
- Collaboration – we work together to achieve our goals.

Moving Forward

ITCD strives to provide high-quality and innovative IT and communications products as well as superior customer service to its Headquarters customers. To that end, ITCD has been working with its stakeholders to help identify its strengths as well as opportunities for improvement. This Strategic Plan serves as both an internal and external roadmap that provides the Division, its stakeholders, and its customers with a clear path toward achieving their common goals. Moving forward, this Strategic Plan will shape ITCD's day-to-day and longer-term actions to ensure that it is focused on becoming the best possible IT and communications service provider for NASA Headquarters.